

AMENDMENTS TO THE CLAIMS:

Claims 1-14, 29-32 and 34-37 were previously canceled without prejudice or disclaimer. Claims 15-16, 18, 21-24 and 26 are amended. Claims 38-46 are added. The following is the status of the claims of the above-captioned application, as amended.

Claims 1-14 (Canceled)

Claim 15. (Currently amended) A RP-II protease variant comprising at least one modification in an amino acid residue in a position located at a distance of 10 Å or less to the ion-binding site, ~~preferably positions located at a distance of 6 Å or less.~~

Claim 16. (Currently amended) The variant of claim 15, wherein modifications are made in at least one of the positions: 1, 2, 3, 4, 5, 6, 7, 8, 143, 144, 145, 146, 158, 159, 160, 161, 162, 194, 199, 200, and 201, ~~preferably positions 2, 3, 4, 5, 6, 7, 144, 159, 160, and 161, and especially the modifications D7E and D7Q in Bacillus licheniformis (BLC) (SEQ ID NO: 2),~~ where the positions refer to BLC or corresponding positions.

Claim 17. (Previously presented) The variant of claim 15, wherein the modification comprises the substitution of a positively charged amino acid residue with a neutral or negatively charged residue, or the substitution of a neutral residue with a negatively charged residue or the deletion of a positively charged or neutral residue.

Claim 18. (Currently amended) The variant of claim 15, wherein the ion binding site is removed by modification in at least one of the positions corresponding to positions 144 and or 161 of BLC, ~~especially the modifications H144R and/or D161R, K+H144Q, N in BLC (SEQ ID NO:2).~~

Claim 19. (Previously presented) A RP-II protease variant of claim 15 comprising at least one modification in an amino acid residue in highly mobile regions in at least one of the positions corresponding to positions 26-31 (26, 27, 28, 29, 30, and 31); 89-91 (89, 90, and 91); 216-221 (216, 217, 218, 219, 220, and 221) of BLC.

Claim 20. (Original) The variant of claim 19, wherein the parent is BLC and the modification comprises G30A and/or G91A.

Claim 21. (Currently amended) A RP-II protease variant of claim 15 comprising at least one modification made in mobile regions in at least one of the positions corresponding to positions 51-56, (51, 52, 53, 54, 55, 56), 88-94, (88, 89, 90, 91, 92, 93, 94), 118-122 (118, 119, 120, 121, 122), and 173-183 (173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183) of BLC, preferably the regions 51-56 and 118-122.

Claim 22. (Currently amended) A RP-II protease variant of claim 15 having at least one disulfide bridge provided by modifying the amino acid residues in positions 128 and 145 in BLC or corresponding positions to Cys, preferably the substitutions S145C and T128C in BLC or corresponding positions.

Claim 23. (Currently amended) A RP-II protease variant of claim 15 having a modified surface charge distribution in comparison to the parent RP-II protease comprising modifications in at least one of the positions corresponding to positions 7, 17, 95, 109, 143, 174, 209, 216, of BLC, especially the modifications

D7N, S, T

Y17R, K, H

Y95R, K, H

T109R, K, H

Q143R, K, H

Q174R, K, H

E209Q, N

N216R, K, H

in BLC (SEQ ID NO. 1).

Claim 24. (Currently amended) A RP-II protease variant of claim 15 exhibiting improved stability in comparison to the parent RP-II protease comprising at substitution to Pro in at least one of the positions corresponding to positions 18, 115, 185, 269 and 293 in BLC, especially one or more of the substitutions: T60P, S221P, G193P, V194P in BLC (SEQ ID NO. 1).

Claim 25. (Previously presented) A RP-II protease variant of claim 15 comprising modifications in amino acid residues in positions corresponding to positions 1, 8, 22-35 (22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35), 42-58 (42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52,

53, 54, 55, 56, 57, 58), 82-100 (82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100), 129-135 (129, 130, 131, 132, 133, 134, 135), 141-142, 153-156 (153, 154, 155, 156), 158, 161-171 (161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171), 188-193 (188, 189, 190, 191, 192, 193), 195,, 201-207 (201, 202, 203, 204, 205, 206, 207), 210, 213-214, 217 in BLC at a distance of less than 10Å from the active site residues.

Claim 26. (Currently amended) The RP-II protease variant of claim 15, further comprising at least one of the modifications (i) amino acid residues in positions that form part of an Asn-Gly sequence being modified by deletion or substitution, ~~preferably with Asp, Gln, Ser, Pro, Thr, or Tyr~~; (ii) amino acid residues in positions that occupied by a Trp being modified by substitution with Phe, Thr, Gln or Gly; (iii) amino acid residues in positions that are occupied by Glu or Asp being modified by substitution with Ala; (iv) amino acid residues in positions that are in positions that are the 1st or 2nd position following a position occupied by a Glu or Asp residue being modified by substitution with a Pro; or (v) amino acid residues in positions that are occupied by a Met being modified by deletion or substitution, ~~preferably with Ser or Ala~~.

Claim 27. (Previously presented) The RP-II protease of claim 15 that is modified in a number of positions ranging from at least one and up to 50 positions, or from 1 to 45 positions, or from 1 to 40 positions, or from 1 to 35 positions, or from 1 to 30 positions, or from 1 to 25 positions, or from 1 to 20 positions, or from 1 to 15 positions, or from 1 to 14 positions, or from 1 to 13 positions, or from 1 to 12 positions, or from 1 to 11 positions, or from 1 to 10 positions, or from 1 to 9 positions, or from 1 to 8 positions, or from 1 to 7 positions, or from 1 to 6 positions, or from 1 to 5 positions, or from 1 to 4 positions, or from 1 to 3 positions, or from 1 to 2 positions, such modifications comprising substitutions, deletions, insertions and combinations thereof in the indicated number of positions.

Claim 28. (Previously presented) An isolated polynucleotide comprising a nucleic acid sequence, which encodes for a RP-II protease variant defined or produced in claim 15.

Claims 29-32 (Canceled)

Claim 33. (Previously presented) A detergent composition comprising a RP-II protease variant defined or produced in claim 15.

Claims 34-37 (Canceled)

Claim 38. (New) The variant of claim 15, wherein the modification is made in an amino acid residue in a position located at a distance of 6 Å or less to the ion-binding site.

Claim 39. (New) The variant of claim 15, wherein the modification is made in an amino acid residue in at least one of positions 2, 3, 4, 5, 6, 7, 144, 159, 160, and 161 of BLC.

Claim 40. (New) The variant of claim 15, wherein the modification is D7E or D7Q of BLC.

Claim 41. (New) The variant of claim 15, wherein the modification is H144R or D161R,K+H144Q,N of BLC.

Claim 42. (New) The variant of claim 15, wherein the modification is made in an amino acid residue in the region corresponding to positions 51-56 or 118-122 of BLC.

Claim 43. (New) The variant of claim 15, wherein the modification is one or more of D7N,S,T; Y17R,K,H; Y95R,K,H; T109R,K,H; Q143R,K,H; Q174R,K,H; E209Q,N; or N216R,K,H of BLC.

Claim 44. (New) The variant of claim 15, wherein the modification is one or more of T60P, S221P, G193P or V194P of BLC.

Claim 45. (New) The variant of claim 26, wherein the modification of an amino acid residue in a position that forms part of an Asn-Gly sequence comprises substitution with Asp, Gln, Ser, Pro, Thr or Tyr.

Claim 46. (New) The variant of claim 26, wherein the modification of an amino acid residue in a position that is occupied by Met comprises substitution with Ser or Ala.